UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,440	07/18/2006	Futoshi Nakabe	2006_0836A	5602

52349   7590   08/17/2009
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EXAMINER
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ART UNIT	PAPER NUMBER
2876	

MAIL DATE	DELIVERY MODE
08/17/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>6</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 June 2009</u>.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,2,5-7 and 9-21</u> is/are pending in the application.
　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1,2,5-7 and 9-21</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>01 June 2008</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
　　a)☒ All　b)☐ Some *　c)☐ None of:
　　　　1.☒ Certified copies of the priority documents have been received.
　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.
　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Request for Continued Examination filed on 6/2/09 has been acknowledged and

as a result, amendment filed on 4/27/09 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

1.   Claims 1-9, 13-17, and 19-21 rejected under 35 U.S.C. 103(a) as being

unpatentable over "Identification cards - Contactless integrated circuit(s) cards –

Proximity cards" (XP-001146902, hereinafter 14443-3) in view of Berger et al. (US

6168083) and Brandys (US 2002/0186838 A1).

Regarding claims 1 and 13-16, 14443-3 teaches a contactless card that

communicates with a reader/writer after being supplied with electric power, the

contactless card having an identifier that identifies the contactless card, the contactless

card comprising: a power detection unit operable to detect electric power enough to

communicate with the reader/writer (7.4.3 and 7.4.5); an identifier storage unit operable

to hold the identifier that identifies the contactless card (this feature is inherent in 14443-

3 because the identifier is created and manipulated by the card, thus it must be stored

somewhere); a receiving unit operable to receive, from the reader/writer, a command

requesting that the identifier that identifies the contactless card be sent to the

reader/writer (6.3.1 or 7.4.5); a sending unit operable to send, to the reader/writer, the

identifier that identifies the contactless card (7.4.1 – "Send ATQB"); a mode judgment

unit operable to judge an operation mode in which the card operates (card judges

whether it is operating in mode 'A' or mode 'B' by what kind of REQ it receives); a

random identifier generation unit operable to generate an identifier in a random manner

(ATQA/UID is random – 6.4.4); and a specific identifier generation unit operable to

generate a specific identifier (ATQB/PUPI - 7.9.2), wherein the judged operation mode

in which the contactless card operates determines which one of (i) the identifier

generated by the random identifier generation unit and (ii) the identifier generated by the

specific identifier generation unit, is to be used as the identifier that identifies the

contactless card (based on whether REQA (6.4.1) or REQB (7.4.1) is received).

14443-3 lacks making a judgment based on voltage.

Berger et al. teaches wherein a contactless card operates by judging whether or

not a voltage at a predetermined point in the contactless card is a predetermined

voltage (Col. 2 Lines 35-45).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of invention to use voltage at a point to determine an operating mode because it can

indicate whether a card is being used in contact or non-contact modes, which are two

very common modes of operation of an IC card.

Berger et al. also lacks determining an operation mode solely and independently

of information received by the receiving unit.

Brandys teaches determining a mode solely and independently of information

received by the receiving unit (enrollment mode - Fig. 2, signing mode - Fig. 3).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of invention to determine an operation mode independently of information received by

the receiving unit because it allows the user to determine a mode of operation of the

card regardless of how the card is being used. This allows for a more versatile smart

card.

Regarding claim 2, 14443-3 in view of Berger and Brandys teaches the

contactless card according to claim 1, as shown above. 1444—3 further teaches

wherein every time the power detection unit detects the enough electric power, one of

the random identifier generation unit and the specific identifier generation unit generates

a new identifier (7.9, 7.9.2 - REQB powers the card up, and ATQB is sent upon receipt

of REQB, ATQB contains identifier) (UID - 6.4.4 or PUPI - 7.9.2)

Regarding claim 5, 14443-3 in view of Berger and Brandys teaches the

contactless card according to claim 1, as shown above. 14443-3 further teaches

wherein the random identifier generation unit is operable to generate the identifier in a

random manner by using a random number (UID 6.4.4 uses random numbers).

Regarding claim 6, 14443-3 in view of Berger and Brandys teaches the

contactless card according to claim 1, as shown above. 14443-3 further teaches a

communication end detection unit operable to detect an end of a communication

between the reader/writer and the receiving unit and the sending unit (7.4.6 - reception

of REQB), wherein, in a case where the communication end detection unit detects the

end of the communication, one of the random identifier generation unit and the specific

identifier generation unit generates a new identifier, and the new identifier is stored in

the identifier storage unit as the identifier that identifies the contactless card (7.4.1 –

"Wait for Matched ATTRIB or HLTB", from this step a REQB ends current

communication and starts over, requiring a new ATQB/identifier).

Regarding claim 7, 14443-3 in view of Berger and Brandys teaches the

contactless card according to claim 1, as shown above. 14443-3 further teaches

wherein the communication between the reader/writer and the contactless card is in

compliance with the ISO/ICE1443 (title page of 14443-3), and the identifier that

identifies the contacless card sent by the sending unit is set as a Pseudo-Unique

Proximity Integrated Circuit Card Identifier included in a response to the command that

is sent from the reader/writer to the receiving unit (7.9.2).

Regarding claim 9, 14443-3 in view of Berger and Brandys teaches the

contactless card according to claim 1, as shown above. 14443-3 further teaches

wherein the operation mode in which the contactless card operates includes: an

inspection mode indicating that the contactless card is in an inspection process; and a

use mode indicating that the contactless card is in use. These two specific modes are

merely intended use and do not provide any further structure to the claims, as such, any

two modes used in a card are sufficient to meet these particular limitations. In the

present 14443-3 reference, the two modes, A and B, require the same structure as the

modes presented in the claims, and thus read on the claimed modes. 14443-3 further

teaches the identifier determination unit is operable to determine, in mode B, that the

identifier generated by the specific identifier generation unit is the identifier that

identifies the contactless card (REQB/ATQB is the first mode), and to determine, in

mode A, that the identifier generated by the random identifier generation unit is the

identifier that identifies the contactless card (REQA/ATQA is the second mode).

Regarding claim 17, 14443-3 in view of Berger and Brandys teaches the

contacless card according to claim 1, as shown above.

14443-3 lacks the specifics of detecting the voltage.

Berger teaches further comprising: a voltage measurement unit operable to

measure the voltage at the predetermined point in the contactless card (Col. 2 Lines 35-

45); and wiring for fixing the voltage at the predetermined point to a first voltage or a

second voltage by connection or disconnection with the predetermined point (Col. 4

Line 65 – Col. 5 Line 3), wherein the mode judgment unit is operable to judge the

operation mode depending on whether the voltage measured by the voltage

measurement unit is the first voltage or the second voltage (Col. 5 Lines 1-8).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of invention to use voltage at a point to determine an operating mode because it can

indicate whether a card is being used in contact or non-contact modes, which are two

very common modes of operation of an IC card.

Regarding claims 19-21, 14443-3 in view of Berger and Brandys teaches the

contactless card according to claim 1, as shown above. 14443-3 further teaches

wherein the identifier generated by the specific identifier generation unit is a fixed

identifier and the identifier generated by the random identifier generation unit is a non-

fixed identifier. "Fixed" and "non-fixed" identifiers are implied by the fact that the

identifiers are specifically generated and randomly generated. The terms "fixed" and

"non-fixed" must be given their broadest reasonable interpretation and in the present

case, something that is randomly generated could be considered "non-fixed" and

something that is specifically or procedurally generated could be considered "fixed".

2.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over 14443-3

as modified by Berger and Brandys and in further view of Nakabe et al. (US

2003/0094491). The teachings of 14443-3 as modified by Berger and Brandys have

been discussed above.

Regarding claim 10, 14443-3 as modified by Berger and Brandys teaches the

contactless card according to claim 1, as shown above. 14443-3 further teaches

wherein the specific generation unit is operable to generate the identifier based on

information stored in a memory (because 14443-3 teaches generating the identifier, it

must be based on some information already present in the memory of the device).

14443-3 lacks the specifics of the memory.

Nakabe et al. teaches storing card identification information in a read-only

memory wherein the information stored in the read only memory is not rewritable [0062].

It would have been obvious to one of ordinary skill in the art at the time of

invention to use ROM to store the identifier information because it allows for very

reliable and secure storage when compared to other memory types.

3.   Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable

over 14443-3 as modified by Berger and Brandys and in further view of Guenther (US

6111951). The teachings of 14443-3 as modified by Berger and Brandys have been

discussed above.

Regarding claims 11 and 12, 14443-3 as modified by Berger and Brandys teaches a contactless card according to claim 1, as shown above.

14443-3 lacks the specifics of the memory.

Guenther teaches wherein the specific identifier generation unit is operable to generate the identifier based on information stored in a non-volatile memory wherein the information stored in the non-volatile memory is rewritable, wherein the non-volatile memory is one of an electrically erasable programmable read only memory (Col. 6 Lines 7-22).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use EEPROM to store the identifier because EEPROM allows for data that can be altered and written (allowing for a more dynamic identifier), but also will be saved when not being powered.

Response to Arguments

Applicant's arguments filed 4/27/09 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims 1 and 13-16 have been considered but are moot in view of the new ground(s) of rejection.

Regarding the argument with respect to claim 10, that Nakabe does not teach generating an identifier based on information stored in a read only memory, this argument is not found to be persuasive. Nakabe is only relied upon to teach storing card identification information in a read only memory. "Card identification information" must be given its broadest reasonable interpretation. In the present case, card identification

information can be any data that is used in the card identification process. Therefore,

the information discussed in paragraph 0062 of Nakabe is identification information and

it is stored in ROM 204.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to RAFFERTY KELLY whose telephone number is

(571)270-5031. The examiner can normally be reached on Mon. - Fri. 800-1730 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Michael Lee can be reached on (571) 272-2398. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rafferty Kelly/
Examiner, Art Unit 2876
8-12-09

/Michael G Lee/
Supervisory Patent Examiner, Art Unit 2876